

(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum  
Internationales Büro



(43) Internationales Veröffentlichungsdatum  
24. Dezember 2003 (24.12.2003)

PCT

(10) Internationale Veröffentlichungsnummer  
WO 03/106558 A1

(51) Internationale Patentklassifikation: C08L 61/32, C08J 5/24, C08G 73/06

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(21) Internationales Aktenzeichen: PCT/EP03/06173

(22) Internationales Anmeldedatum: 12. Juni 2003 (12.06.2003)

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(25) Einreichungssprache: Deutsch

(26) Veröffentlichungssprache: Deutsch

(30) Angaben zur Priorität:  
A902/2002 14. Juni 2002 (14.06.2002) AT  
A905/2002 14. Juni 2002 (14.06.2002) AT

[Fortsetzung auf der nächsten Seite]

(54) Title: AMINOPLAST MOLDING COMPOUNDS FOR PRODUCTS EXHIBITING AN IMPROVED FLEXIBILITY AND AMINOPLAST PRODUCTS EXHIBITING AN IMPROVED FLEXIBILITY

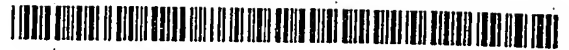
(54) Bezeichnung: AMINOPLAST-FORMMASSEN FÜR ERZEUGNISSE VERBESSERTER FLEXIBILITÄT UND AMINOPLASTERZEUGNISSE VERBESSERTER FLEXIBILITÄT

(57) Abstract: The invention relates to aminoplast molding compounds that are comprised of mixtures consisting of meltable 20 to 1000-ring polytriazine ethers, in which the triazine rings are primarily linked by binding links of the -NH-CHR<sub>2</sub>-O-R<sub>4</sub>-O-CHR<sub>2</sub>-NH- and -NH-CHR<sub>2</sub>-NH- type, whereby: R<sub>2</sub> = H, C<sub>1</sub>-C<sub>7</sub> alkyl; R<sub>4</sub> = C<sub>2</sub>-C<sub>18</sub> alkylene, -CH(CH<sub>3</sub>)-CH<sub>2</sub>-O-<SB>C<sub>2</sub>-C<sub>12</sub>-</SB>-alkylene-O-CH<sub>2</sub>-CH(CH<sub>3</sub>)-, -CH(CH<sub>3</sub>)-CH<sub>2</sub>-O-<SB>C<sub>2</sub>-C<sub>12</sub>-</SB>-arylene-O-CH<sub>2</sub>-CH(CH<sub>3</sub>)-, -[CH<sub>2</sub>-CH(CH<sub>3</sub>)-O-CH<sub>2</sub>-CH(CH<sub>3</sub>)]<sub>n</sub>-, -[O-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>]<sub>n</sub>-, -[(CH<sub>2</sub>)<sub>2-8</sub>-O-CO-<SB>C<sub>6</sub>-C<sub>14</sub>-</SB>-arylene-CO-O-(CH<sub>2</sub>)<sub>2-8</sub>]<sub>n</sub>-, -[(CH<sub>2</sub>)<sub>2-8</sub>-O-CO-<SB>C<sub>2</sub>-C<sub>12</sub>-</SB>-alkylene-CO-O-(CH<sub>2</sub>)<sub>2-8</sub>]<sub>n</sub>-, in which n = 1 to 200. The aminoplast molding compounds are also comprised of sequences containing siloxane groups, sequences based on the alkylene oxide adducts of melamine, phenol ether sequences based on bivalent phenols and diols, and these compounds can contain up to 50 % by mass of additional reactive polymers of the ethylene-copolymer, maleic anhydride-copolymer, modified maleic anhydride-copolymer, poly(meth)acrylate, polyamide, polyester and/or polyurethane type, up to 75 % by mass of fillers, up to 20 % by mass of diols, and up to 5 % by mass of stabilizers, UV absorbers and/or auxiliary agents. The invention also relates to aminoplast products that exhibit an improved flexibility such as panels, pipes, profiled pieces, coatings, foam materials, fibers or injection-molded parts, which can be produced by thermoplastic processing the inventive molding compounds. The aminoplast molding compounds can be processed according to conventional melt processing methods and can be used as hot-melt adhesives and for producing panels, pipes, profiled pieces, injection-molded parts, fibers and foam materials. The aminoplast products, which exhibit an improved flexibility while meeting high requirements with regard to flame resistance and heat resistance, are used in the construction industry, mechanical engineering, automotive industry and fire-protection engineering.

(57) Zusammenfassung: Aminoplast-Formmassen bestehend aus Mischungen aus schmelzbaren 20- bis 1000-Kern-Polytriazine-thern, in denen die Triazinringe überwiegend durch Brückenglieder vom Typ -NH-CHR<sub>2</sub>-O-R<sub>4</sub>-O-CHR<sub>2</sub>-NH- und -NH-CHR<sub>2</sub>-NH- verknüpft sind, wobei R<sub>2</sub> = H, C<sub>1</sub>-C<sub>7</sub>-Alkyl; R<sub>4</sub> = C<sub>2</sub>-C<sub>8</sub>-Alkyl, -CH(CH<sub>3</sub>)-CH<sub>2</sub>-O-C<sub>2</sub>-C<sub>12</sub>-Alkyl, -CH(CH<sub>3</sub>)-CH<sub>2</sub>-O-C<sub>2</sub>-C<sub>12</sub>-Arylen-O-CH<sub>2</sub>-CH(CH<sub>3</sub>)-, -[CH<sub>2</sub>-CH(CH<sub>3</sub>)-O-CH<sub>2</sub>-CH(CH<sub>3</sub>)]<sub>n</sub>-, -[CH<sub>2</sub>-CH(CH<sub>3</sub>)-O-CH<sub>2</sub>-CH(CH<sub>3</sub>)]<sub>n</sub>-, -[O-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>]<sub>n</sub>-, -[(CH<sub>2</sub>)<sub>2-8</sub>-O-CO-C<sub>6</sub>-C<sub>14</sub>-Arylen-CO-O-(CH<sub>2</sub>)<sub>2-8</sub>]<sub>n</sub>-, -[(CH<sub>2</sub>)<sub>2-8</sub>-O-CO-C<sub>2</sub>-C<sub>12</sub>-Alkyl-CO-O-(CH<sub>2</sub>)<sub>2-8</sub>]<sub>n</sub>-, wobei n = 1 bis 200; Siloxangruppen enthaltende Sequenzen, Sequenzen auf Basis von Alkylendioxyaddukten des Melamins, Phenolethersequenzen auf Basis zweiwertiger Phenole und Diolen, bedeuten, und wobei die Formmassen bis zu 50 Masse% weitere reaktive Polymere vom Typ Ethylen-Copolymere, Maleinsäureanhydrid-Copolymere, modifizierte Maleinsäureanhydrid-Copolymere, Poly(meth)acrylate, Polyamide, Polyester und/oder Polyurethane, bis zu 75 Masse% Füllstoffe, bis zu 20 Masse% Diole sowie bis zu 5 Masse% Stabilisatoren, UV-Absorber und/oder Hilfsstoffe, enthalten können; sowie Aminoplasterzeugnisse verbesserter Flexibilität wie Platten, Rohre, Profile, Beschichtungen, Schaumstoffe, Fasern oder Spritzgussteile, die durch thermoplastische Verarbeitung der erfindungsgemäßen Formmassen hergestellt werden. Die Aminoplast-Formmassen lassen sich nach üblichen Verfahren der Schmelzverarbeitung verarbeiten und können als Schmelzkleber und zur Herstellung von Platten, Rohren, Profilen,

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(81) Bestimmungsstaaten (national): AE, AG, AL, AM, AT,  
AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR,  
CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE,  
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,  
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO,  
RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Bestimmungsstaaten (regional): ARIPO-Patent (GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ,  
TM), europäisches Patent (AT, BE, BG, CH, CY, CZ, DE,  
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,  
PT, RO, SE, SI, SK, TR), OAPI-Patent (BF, BJ, CF, CG,  
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Veröffentlicht:

— mit internationalem Recherchenbericht

Zur Erklärung der Zweibuchstaben-Codes und der anderen Ab-  
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## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP 03/06173

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08L61/32 C08J5/24 C08G73/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08L C08G C08J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

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	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

23 September 2003

Date of mailing of the international search report

01/10/2003

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

Patent Application No  
PCT/EP 03/06173

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